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Knowledge Acquisition and Skill Development Issues and Pointers for Future Development of TVET in India in Formal as well as Distance Education Mode

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INTRODUCTION

The concerns and imperatives of Vocational Education and Training (VET) demand that education should lead to total human development. This includes personal, intellectual, social economic, civic, cultural, ethical and spiritual development. Vocational education is "instruction intended to equip persons for industrial or commercial occupation. It may be obtained either formally in trade schools, technical secondary schools or on the job training programmes or more informally by picking up the necessary skills on the job without actual supervision." (World Bank)

The world is witnessing an explosion in the field of knowledge, computers , information and communication technology (ICT), which has resulted in the workplace as well as the profile of the worker-now there is a demand for a knowledge worker by the industry. The focus in demand from industry has therefore seen a paradigm shift from that of a person trained in skills/trade to a person who has not only learnt the skills but also the knowledge (theory) component. In the present day scenario of rapidly changing technological world, there is a demand for a knowledge worker who has the capability to understand and appreciate the changes in the workplace as well as retrain himself as per the requirement through short term courses.

In this context, lifelong learning is becoming increasingly focused in order to ensure that students receive skills necessary to be productive knowledge workers in 21st century.

THE TARGET GROUP

A large percentage of students leave the schools for a variety of reasons. These students need to earn by doing some job in the world of work. For this purpose they need to be made employable by giving appropriate skill training and acquiring those skills or skill set which is demanded by industry. The beneficiary group will also comprise of those workers who wish to improve their skill set or upgrade their knowledge and skills. Adults who have never been to school may also benefit from such programmes

The dimensions of the problem relating to the clientele for VET are relevant enough to be taken note of. Labour force of 458 million needs VET several times in working life. 28 million youth are added to labour force every year. We have a workforce of 447 million, 26.4 million in organized sector and 421 million in informal economy/unorganized sector. There is practically no VET for informal economy

THE TRAINING PROVIDERS

VET in India is delivered through many agencies and government departments, both state and central, as well as voluntary agencies and NGOs for a variety of learner groups. It is multi-sectoral. Some ministries train for their own internal requirements through their own training systems, for example, Railways, Post and Telegraph, Defence, etc. while others draw

their personnel from the general pool of technical resources coming out of other training systems.

Vocational education and training is presently being offered in the country primarily through the following category of institutions which is given below:-

1. Polytechnics;
2. Industrial Training Institutes (ITIs);
3. Specialised institutions/schools like Technical/Industrial/Arts and Craft schools, forestry schools, commercial training schools etc.;
4. Vocational education at the +2 level, that is class XI & XII, within the school system

Polytechnics and ITIs have, for long been recognized as the main institutions conducting vocational training programmes outside the school system. The Craftsman training scheme was introduced in 1950 for imparting skill training in various vocational trades to meet the skilled manpower needs of the industry as well as reduce unemployment among educated youth by providing and inculcating employable skills in them. The scheme is implemented through 4591 either government or privately managed ITI that are approved by National Council of Vocational Training (NCVT).The intake capacity of the system is more than 6.5 lakhs. There are in all 64 trades of which 38 belong to engineering group. The entry level for some courses is 8+ and for some others is 10+; but the intake is more in 10+ courses. The period of training varies from 1 year to 3 years. The National Trade Certificate awarded to the successful candidates is a recognised qualification for recruitment to relevant subordinate posts and services in Central/State Government establishments.

Technician education is imparted in polytechnics in engineering and non-engineering areas. Polytechnic offers a variety of professional courses (about 47 courses) which is mainly technical and vocational in nature. The Polytechnics are offering diploma level courses in a number of trades which are well received in market. There are various types of polytechnics in India – government owned polytechnics, private polytechnics, women's polytechnics and likewise. There are at present 1292 polytechnics in India both run by state governments and private bodies but follow the curricula prescribed by the state, with an intake of 2.65 lakhs .They are certified by the state and come under the purview of the All India Council for Technical Education(AICTE), a statutory body of Government of India. They aim to meet the human resource needs of organised business.

VET through Education Sector

Considering the secondary and higher secondary education are important terminal stages in the system of general education system, various
Commissions/Committees examining the question of educational reforms like the Radhakrishnan Commission (1948), Mudaliar Commission (1952), the Education Commission (1964-66) etc. underlined the need for vocationalisation of secondary education. The vocational education programme at the higher secondary stage covers six major areas namely agriculture, business and commerce, engineering and technology, health and paramedical, home science and humanities through over 150 courses throughout the country. The programme has been started by all States/UTs and 18055 vocational sections have been sanctioned in 6280 schools all over the country, creating a capacity for vocational education for 9.02 lakh students at the +2 level. The courses are to be selected through district vocational surveys to ensure training as per the needs of the job market

Considering that about 80% of the student population does not go beyond class X forming a large pool of unskilled labour force, a Centrally Sponsored scheme of pre-vocational education at lower secondary stage was launched in 1993-94 with the following objectives:

1. To impart training in simple marketable skills to students in class IX & X;
2. To develop vocational interests and aptitudes and to allow for self-exploration of vocational preferences;
3. To prepare students for participation in work as desired dimension of academic education; and
4. To facilitate the students in making choice of vocational courses at higher secondary level

National Institute of Open Schooling (NIOS): NIOS is mandated to operate for the entire country through its network institutions as an alternative for out of school youth and to provide them with a second chance and to cater to the educational needs of a wide variety of clientele from rural, tribal and remote and difficult to reach areas. It aims to particularly work

for those belonging to the under-privileged groups and all others requiring a more flexible approach than the existing formal school system.

Vocational education is an important component of open schooling that offers new vistas and potentialities not imaginable for the formal system. While conforming to the National Policy on Education1986/1992 and the NCF 2005, Open Distance Learning (ODL) offers new opportunities and challenges for those learners who have been deprived of such opportunities so far. Its very nature and in-built flexibility allows such approaches as never possible in the formal system and as such offers greater chances of success for a wide variety of clientele in the area of their skill needs.

NIOS provides vocational education in about 100 courses in the areas of Agriculture, Business and Commerce, Technology, Health and Paramedical, Home Science and Teacher Training. Knowledge , skills and entrepreneurship have been made essential components of the curricula with emphasis on hands-on and on-the job-training in related work establishments. The vocational courses developed by NIOS are delivered through Accredited Vocational Institutes (AVI). The courses are of varying duration (from 6 months to 2 years) and the prescribed entry level is also different as per the needs of the course.

Informal Sector in VET

The informal sector of training needs to be given due consideration. It is entirely unorganised, unqualified but vital for rural urban life support and that takes place from father to son , guru to shishya, (ustad to shagird) and under master craftsmen. This type of training may, by far , still be the largest training modality in the country .

There are 108 Jan Shikshan Sansthan (JSS) spread all over the country offering need based /non-formal courses to youth. This is a central sector scheme.

TOWARDS A CONVERGENCE OF KNOWLEDGE ACQUISITION AND SKILL DEVELOPMENT (UNESCO, 2005)

This document recognizes the fact that "changes in society, the economy and the   world of work place pressure on secondary schools to consider approaches to learning and that preparing young people for higher education is no longer an exclusive or adequate objective, especially with so many moving directly from secondary school to employment, to TVET or to unemployment …" It is important to note what UNESCO concludes in this document.

It suggests that "In order to prepare young people for life and work in a rapidly changing world, secondary level education systems need to be reoriented to impart a broad repertoire of life-skills. These skills should include the key generic competencies, non-occupation-specific practical capabilities. Information Communication Technology (ICT), the ability to learn independently, to work in teams, entrepreneurship and civic responsibility. They may be best installed through a shared foundational learning period by deferring tracking of students between academic and vocational streams for as long as possible. When streaming does occur, there should be articulation between General Secondary Education (GSE) and TVET to ensure the free movement of students between the streams depending on their aptitudes and inclinations. Accreditation in one stream should have equal in the other as well as for access to higher education." It further says "Such a model of secondary education is expected to equip young people with multiple skills so that they are prepared to enter and re-enter the workforce several times in their working lives, if necessary, as wage employees or self-employed entrepreneurs, to re-train themselves when their skills become obsolete and to contribute to their personal, economic and social development and that of their communities in sustainable ways." The recommendations of UNESCO have far-reaching implications for the Indian context in revamping our total approach to VET.

STRATEGY IN ELEVENTH PLAN

Setting up the National Skill Development Mission. The emphasis will be on demand driven VE programmes in partnership with employers.

Greater emphasis on the services sector and , therefore, on soft skills, computer literacy and flexi-time. Emphasis will be on development of generic skills and multiple skills so that persons may respond to changes in technology and market demands. Generic skills that cut across a number of occupations would enable an individual to transfer from one field to another during his/ her working life.

VE could be offered in flexible mode through modular courses of varying durations , with credit transfer facility

A National Vocational Qualification (NVQ) System, in which public and private system of VE collaboratively meet the needs of industry and individuals will be developed.

During Eleventh Plan, VE will be expanded to cover 20000 schools with intake capacity of 25 lakh by 2011-12. The programme will ensure mobility between general and technical education and multiple entry and exit options.

ISSUES & CONCERNS

The following points are mentioned for the planning of future system:

a. The wages of workers with qualifications beyond primary school have grown far more rapidly than those of workers with primary school or less; the steepest of increases being for workers with tertiary qualifications. Thus education and skill acquisition are important determinants of job and income prospects.

b. There is growing demand for workers with secondary education with technical/vocational skills.

c. Although the number of workers with some education has grown, the overall educational attainment remains low in absolute terms and in comparison to other countries, India has only marginally improved its performance in education. Although productivity has been increasing and education levels rising, still considerable ground needs to be covered to further improve the quality of education and training.

d. There is a general awareness among people for job oriented courses and ever increasing young learners are looking for new career paths in demand driven vocational education courses rather than pursuing degree courses which do not prepare them for a job in the world of work.

The organized public and private sectors employ only 11 per cent and the rest 89% of employment in India is in the informal sector, with employees working in relatively low productivity jobs. The country requires technical and skilled manpower particularly in view of the opening up of economy in recent years and thrust on liberalization and globalization. Development of appropriate skills may thus be an important intervention to increase the productivity of this workforce.

e. The vocational education and training system needs to be planned and established for a large number of youth who are looking for this.

POINTERS FOR FUTURE DEVELOPMENT IN INDIA

i. Identification of the beneficiary target group

ii. Development of competency based modular curricula

iii. Development of learning materials including print, non-print and e-learning materials

iv. Establishing a delivery system through training providers

v. Seeking and ensuring the support of industry/enterprise in providing internship/master-craftsman for practical lessons, skill training/ contextual training in the workplace

vi. Promoting the concept of life long-learning

vii. Providing demand driven and not supply driven competency based modular courses with built-in flexibility for multi entry/exit, credit based system

viii. Increasing the outreach, so as to cover an ever increasing number of educated/uneducated, employed / unemployed adult youth and provide relevant multi skill training and make them more employable

ix. Designing and putting a well conceived quality assurance programme in place to ensure quality in skill training

x. Developing national standards for competency based certification

xi. Certification at the national level using performance tests or competency testing involving user agency.

xii. Developing a Management Information System (MIS) for continuous monitoring and feedback

xiii. Ensuring research based decision-making by educational planners and administrators

xiv. Developing a mechanism to continually survey the economic sector for economic development and technological development and assessing the requirement of skilled manpower in the economic sector, and provide the curriculum developers with the basic data to work on

xv. Develop suitable learning materials for learners both print as well as non-print.

xvi. Encourage increasing use of Information and Communication Technology (ICT) and provide on line learning to learners in difficult to reach areas.

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